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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,996	08/29/2003	Boris Y. Tsirline	3022	1995

31424 7590 10/19/2006

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EXAMINER	
DAO, MINH D	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/604,996	TSIRLINE ET AL.	
	Examiner	Art Unit	
	MINH D. DAO	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-19 and 21-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-19 and 21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 08/08/06 with respect to claims 15-19, 21-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 15-19, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forster (US 2004/0195319) in view of Admitted Prior Art (APA) submitted by Applicant and further in view of Graves et al. (US 6,067,475).

Regarding claim 15, Forster teaches a near field coupling device comprising: a plurality of lines electrically interconnected in parallel (see figs. 9,10; section [0083]); and a terminating resistor coupled to the lines (see section [0116]). However, Forster does not mention a ground plane spaced away from the plurality of lines. Admitted Prior Art submitted by Applicant in fig. 1 of the specifications teaches such limitation. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Admitted Prior Art submitted by Applicant in order to keep the insertion loss, mismatch, undesirable coupling among elements to a minimum.

Still regarding claim 1, the combination of Foster and the APA does not mention that the terminating resistor is selected not to match a characteristic impedance of the plurality of lines. Graves, in an analogous art, teaches a terminating resistor that is intentionally used to present an impedance mismatch in a coupling circuit to compensate for degradation effects associated with manufacturing variations in the coupling circuit (see col. 6, lines 29-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Graves to Foster and the APA in order to obtain a design that would result in optimal directivity and therefore precision in measuring reflected power (see Graves, col. 6, lines 29-59).

Regarding claim 16, the combination of Forster, APA and Graves teaches the near field coupling device of claim 15, wherein the plurality of lines are formed as at least a first trace on a printed circuit board and the ground plane is formed as a second trace on a printed circuit board (see figs. 2a and 2b of APA).

Regarding claim 17, the combination of Forster, APA and Graves teaches the near field coupling device of claim 15, wherein at least one of the plurality of lines has a zig-zag characteristic (see figs. 9 and 10 of Forster).

Regarding claim 18, the combination of Forster, APA and Graves teaches the near field coupling device of claim 15, wherein the plurality of lines are spatially aligned coplanar and parallel to each other (see figs. 1, 2a, 2b of APA).

Regarding claim 19, the combination of Forster, APA and Graves teaches the near field coupling device of claim 15, wherein the length, width and interspacing of the plurality of lines is selected for a desired bandwidth (see Forster sections [0070-0071]).

Regarding claim 21, the combination of Forster, APA and Graves teaches a near field coupler for communication with an transponder located in a transponder operating region, comprising: a near field coupler having a plurality of lines coupled to a terminating resistor selected not to match a characteristic impedance of the plurality of lines (see Graves, col. 6, lines 29-59); the near field coupler receiving an RF communication signal and configured to produce an array of spaced near field concentrations responsive to the RF communication signal (see Forster, figs. 1-10), the spacing of said near field concentrations along a predetermined direction being significantly less than a smallest dimension of said transponder in said predetermined direction such that said transponder overlaps and is excited by a plurality of said field

component when located in said transponder operating region (see Forster, figs. 1-10; sections [0083-0084]).

Regarding claim 22, the combination of Forster, APA and Graves teaches the coupler of claim 21 wherein said near field concentrations are formed by lines configured in an array with a spaced parallel geometry (see figs 9 and 10 of Forster).

Regarding claim 23, the combination of Forster, APA and Graves teaches the coupler of claim 22 wherein said lines comprise leaky edges formed in a microstrip coupler (see figs. 2a, 2b of APA).

Regarding claim 24, the combination of Forster, APA and Graves teaches the coupler of claim 22 wherein said lines have a Zig-zag configuration (see figs. 9 and 10 of Forster).

Regarding claim 25, the combination of Forster, APA and Graves teaches the coupler of claim 22 wherein said lines are formed as a trace on a printed circuit board having a separate ground plane (see figs. 1, 2a and 2b of APA).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is 571-272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh Dao
AU 2618
October 5, 2006

Matthew Anderson
Superviser AU 2618